⚠ **Update Alert**: Firmware updates are posted on the web on a regular basis. We recommend that you check for firmware and/or install guide updates prior to installing this product.

Installation Guide

This guide supports the installation of a DBALL in Remote Start Ready (RSR) mode with or without a Plug & Play (TLTH2) T-Harness (Optional). This solution offers three (3) configuration options to control your system; 3x OEM Lock Remote Start Activation*, RF Kit or SmartStart (all sold separately). Refer to pages 17-18 for a list of RF kits and their part numbers.

Refer to Quick Reference Guide (QRG) at the end of this guide for more information on how to use various features offered with this product.

⚠ * 3x OEM Lock Remote Start Activation is a feature that allows users to control an XpressStart or a DBALL in RSR using the factory (OEM) remote control.

Note: Only available on certain models, check the Vehicle Application Guide for compatibility with specific year and model.

🚗 **RSR** Remote Start Ready (RSR) is a function that enables the interface module to remote start the vehicle completely on its own. Consequently, there is no need for an aftermarket or an OEM remote starter in order to start the vehicle from a distance.

🚦 **Important!**
This product is NOT compatible with vehicles equipped with a manual transmission.

LEXUS   **TOYOTA**

Index

🔘 **SmartStart Compatible**
SmartStart is equipped with D2D, which means it can be connected to an interface module and used in Remote Start Ready (RSR) mode without the use of a remote starter. See the **Module Programming** section for more information.

† Toyota and Lexus are registered trademarks and property of their respective companies.

Vehicle Application Guide

The following table lists the vehicles and features which are compatible with this product. The number assigned to each year allows you to determine which installation type should be used for your vehicle.

Vehicles	2013	2012	2011	2010	2009	AV-Auto Headlamp Shutoff	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Driver Priority Unlock	DL-Hatch Glass Release	DL-Sliding Door Control Driver	DL-Sliding Door Control Passenger	DL-Trunk / Hatch Release	EIPS	PK-Immobilizer Bypass-Data No Key Req'd	PK-Push To Start Ignition Compatible	RS-3x LOCK START (Start control using OEM Remote)	RS-Accessory Activation	RS-Ignition Activation	RS-Remote Start Ready	RS-SmartStart	RS-Start (Crank) Activation	RS-Tach / RPM Output	SS-Entry Monitoring ALL Door Pins	SS-Entry Monitoring Driver Door Pin	SS-Entry Monitoring Hood Pin	SS-Entry Monitoring Trunk/Hatch Pin	SS-Factory Alarm Trigger Monitoring	ST-Brake Status (foot brake)	ST-Ignition Status
Lexus																																
CT 200h (Smart Key)			3			•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
GX 460	2	2	2	2		•	•	•	•	•	•	•			•	•	•	•	D	•	•	D	D	•	•	•	D		•	D	•	•
HS 250h (Smart Key)		3	3	3		•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
RX 350 (Smart Key)	2					•	•	•	•	•	•				•	•	•	•	D			D	D		•	•	D	•	•	D	•	•
RX 350 (Smart Key)		2	2	2		•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
RX 450h (Smart Key)		2	2	2		•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Toyota																																
4Runner (Smart Key)	2	2	2	2		•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Prius	3					•	•	•	•	•	•	•			•	•	•	•	D			D	D		•	•	D	•	•	D	•	•
Prius		3				•	•	•	•	•	•	•			•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Prius			3	3		•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Prius v	3					•	•	•	•	•	•				•	•	•	•	D			D	D		•	•	D	•	•	D	•	•
Prius v		3				•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Sienna (Smart Key)	2	2	2			•	•	•	•	•	•		•	•	•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•
Venza (Smart Key)	1	1	1	1	1	•	•	•	•	•	•				•	•	•	•	D	•	•	D	D	•	•	•	D	•	•	D	•	•

Note: Keyless and Smart Key will remain functional during remote start.

* By default, the tach is set to 1000 rpm on hybrid vehicles.

If the vehicle is already equipped with an OEM remote starter, the installer must disconnect it before installing the DBALL otherwise it will not program.
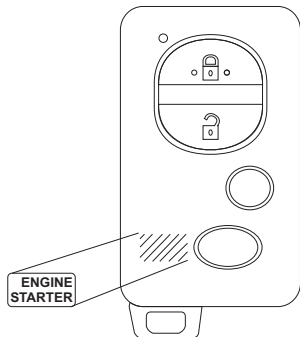Only one remote starter at a time can be programmed in the vehicle.

Legend:

D2D: Data-to-Data (D2D) only
W2W: Wire-to-Wire (W2W) only
•: D2D and W2W

AV: Horn & Lights Control
DL: OE Door Lock & Alarm Controls
EIPS: Engine Idle Protection System
PK: Transponder & Immobilizer Override

RS: Remote Start & Engine Controls
SS: Integrated Security & Monitoring
ST: Function/Feature Status

How to Know if the Vehicle is Equipped with an OEM Remote Starter

1- An "ENGINE STARTER" sticker should be on the remote. ENGINE STARTER	2- Remote start the OEM remote starter: Press the remote control's lock button twice within 2 seconds, then press and hold the lock button for 3 seconds. The parking lights flash after 3 seconds. The engine starts and the parking lights flash repeatedly for 20 seconds. x2 & **Press & Hold for 3 seconds**

If the Vehicle is Equipped with an OEM Remote Starter

If the vehicle is equipped with an OEM remote starter, the DBALL will detect it and will program into convenience only (no bypass)*. The reason for this is to allow aftermarket security to be installed while keeping the factory remote starter active. If you wish to use DBALL to control the remote start sequence, the factory remote starter must be disconnected before programming the DBALL as both modules cannot coexist.

Locating the OEM remote starter

Installation Type	Vehicle	OEM Remote Starter & Connectors Location
1	**Toyota Venza Push-to-start 2009- 2013**	Behind glove box
2	**Lexus RX 450h 2010-2012**	Behind glove box
2	**Lexus RX 350 2010-2012**	Behind glove box
2	**Toyota 4Runner (Smart Key) 2010-2012**	Behind glove box & Passenger kick panel
2	**Toyota Sienna (Smart Key) 2011-2012**	Behind glove box & Passenger kick panel
3	**Lexus HS 250h 2010-2012**	Behind glove box
3	**Toyota Prius 2010-2012**	Under dash panel & Driver kick panel
3	**Lexus CT 200h 2011**	Behind glove box
3	**Lexus GX 460 2010-2013**	Behind glove box
3	**Toyota Prius V 2012**	Behind glove box

* The DBALL will light up orange for 3 seconds after programming or power up to indicate the bypass is not active.
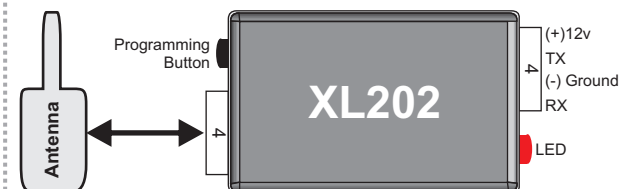Refer to LED Diagnosticsand Troubleshooting section for more information.
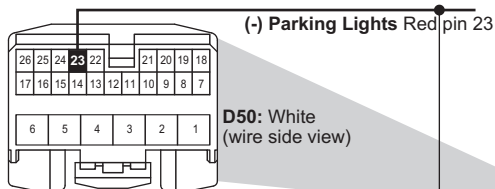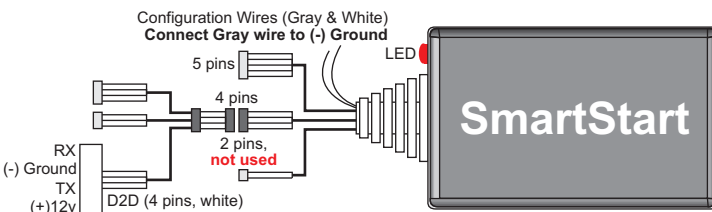
Installation Type 1a (with T-Harness)

⚠️ **Important!**
The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

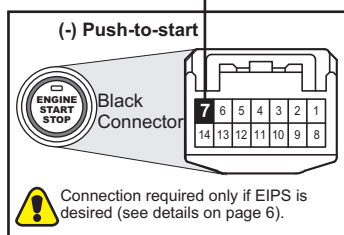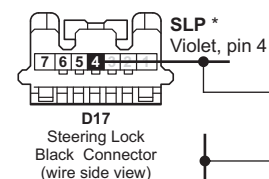The **optional** XL202 and antenna are not included and MUST be purchased separately.

Programming Button

XL202

Antenna

(+)12v
TX
(-) Ground
RX
4
4

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground
5 pins
4 pins
2 pins, **not used**

RX
(-) Ground
TX
(+)12v
D2D (4 pins, white)

LED

SmartStart

(-) Parking Lights Red pin 23

26 25 24 **23** 22 | 21 20 19 18
17 16 15 14 13 12 11 10 9 8 7
6 5 4 3 2 1

D50: White
(wire side view)

D2D
XOVER

SMART START
CABLE

⚠️ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

BRX Black, pin 23
BTX Blue, pin 22

28 27 26 25 | 24 **23 22** 21
20 19 18 17 16 15 14 13 12 11
10 9 8 7 6 5 4 3 2 1

D49: White
(wire side view)

D50 D49

Main body ECU
Back side

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

Remote Start Safety Override Switch

SLP *
Violet, pin 4

7 6 5 **4**

D17
Steering Lock
Black Connector
(wire side view)

14

8: Yellow: (-) SLP* Output

1: Black/White: (-) EIPS Fail Output
2: Green/Black: (-) Push-to-Start Output
4: Red/Black: (-) Parking Lights Output

⚠️ **For the 12-pin and 10-pin connectors, use the harnesses that are provided with the DBALL.**

10

6: White/Black: (-) Hood

(-) Push-to-start

ENGINE START STOP

Black Connector

7 6 5 4 3 2 1
14 13 12 11 10 9 8

⚠️ Connection required only if EIPS is desired (see details on page 6).

10: Yellow/Black: BRX
11: Orange/Black: BTX

12

2

RF

Programming button

LED

DBALL

(+) 12v
RX
(-) Ground
TX

4

Horn Black Connector
(at the bottom of steering column)

1 2 3 4 5 6
8 9 10 11 12

EIPS** to Horn

D1 Diagnostic Connector OBDII
(connector side view)

1 8
9 16

TLTH2
(optional)

⚠️ See page 6 for help on locating key components in the vehicle and wiring reference chart.

* SLP: Steering Lock Actuator Position Signal
** Only required if EIPS option is desired.

Installation Type 1b (without T-Harness)

> ⚠ **Important!**
> The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

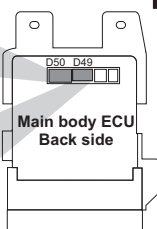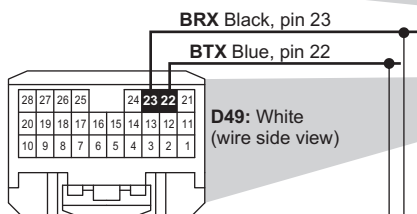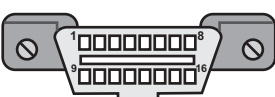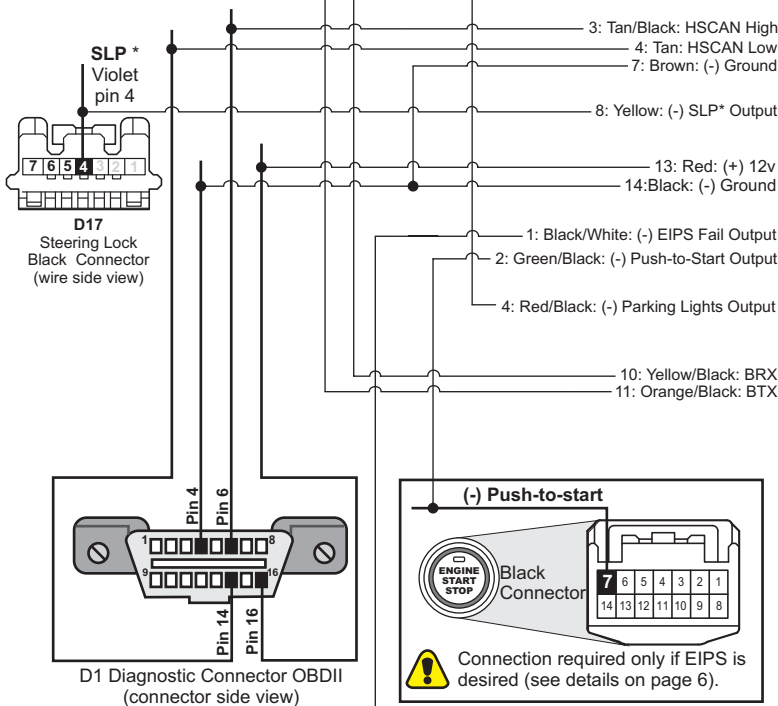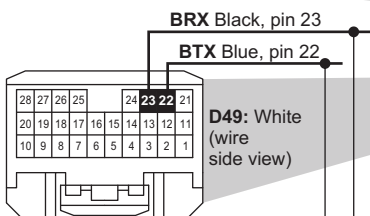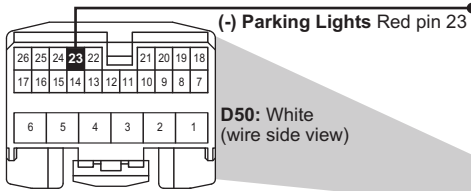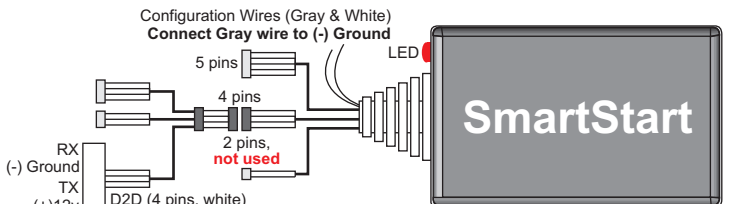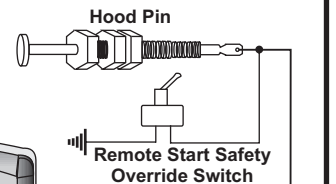The **optional** XL202 and antenna are not included and MUST be purchased separately.

Programming Button

Antenna

XL202

4

(+)12v
TX
(-) Ground
RX

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground

5 pins

4 pins

LED

2 pins,
not used

RX
(-) Ground
TX
(+)12v

D2D (4 pins, white)

SmartStart

(-) Parking Lights Red pin 23

26 25 24 **23** 22 | 21 20 19 18
17 16 15 14 13 12 11 10 9 8 7
6 5 4 3 2 1

D50: White
(wire side view)

D2D XOVER

SMART START CABLE

⚠ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

BRX Black, pin 23
BTX Blue, pin 22

28 27 26 25 | 24 **23 22** 21
20 19 18 17 16 15 14 13 12 11
10 9 8 7 6 5 4 3 2 1

D49: White
(wire side view)

D50 D49

**Main body ECU
Back side**

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

**Remote Start Safety
Override Switch**

3: Tan/Black: HSCAN High
4: Tan: HSCAN Low
7: Brown: (-) Ground

8: Yellow: (-) SLP* Output

SLP *
Violet
pin 4

7 6 5 **4** 3 2 1

D17
Steering Lock
Black Connector
(wire side view)

13: Red: (+) 12v
14: Black: (-) Ground

1: Black/White: (-) EIPS Fail Output
2: Green/Black: (-) Push-to-Start Output

4: Red/Black: (-) Parking Lights Output

14

12

10

6: White/Black: (-) Hood

10: Yellow/Black: BRX
11: Orange/Black: BTX

2

RF

Programming button

LED

DBALL

4

(+) 12v
RX
(-) Ground
TX

Pin 4
Pin 6
Pin 14
Pin 16

1 ... 8
9 ... 16

D1 Diagnostic Connector OBDII
(connector side view)

(-) Push-to-start

ENGINE START STOP

Black Connector

7 6 5 4 3 2 1
14 13 12 11 10 9 8

⚠ Connection required only if EIPS is desired (see details on page 6).

1 2 3 4 5 6
8 9 10 11 12

EIPS** to Horn

Horn, Black Connector
(at the bottom of steering column)

⚠ See page 6 for help on locating key components in the vehicle and wiring reference chart.

***SLP**: Steering Lock Actuator Position Signal
** Only required if EIPS option is desired.

Vehicle Wiring Reference Chart - Type 1

Vehicles	Function	Connector	Pin	Wire
Toyota Venza 2013 Push-to-Start	CAN High	D1 (OBDII)	6	Yellow
	Can Low	D1 (OBDII)	14	White
	BRX	J	1	Black
	BTX	J	2	Blue
	Push-to-start	D13	7	Blue
	SLP*	D17	4	Violet
	Horn	D18	8	Yellow
	Ground	D1 (OBDII)	4	Black
Toyota Venza 2009- 2012 Push-to-Start	CAN High	D1 (OBDII)	6	Yellow
	Can Low	D1 (OBDII)	14	White
	BRX	D49	23	Black
	BTX	D49	22	Blue
	Push-to-start	D13	7	Blue
	SLP*	D17	4	Violet
	Horn	D18	8	Yellow
	Ground	D1 (OBDII)	4	Black

*SLP: Steering Lock actuator position signal

⚠️ **WARNING**
- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.
- To remote start the engine, all doors must be closed, including rear hatch.
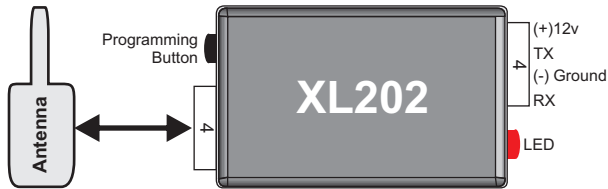
Locating Key Components in the Vehicle

Main Body ECU
Toyota Venza: conn. **D49, D50**

Push-to-start button
Toyota Venza 2013: conn. **J**

Black connector at steering lock
Toyota Venza: conn. **D17**

Diagnostic connector
Toyota Venza: conn. **D1**
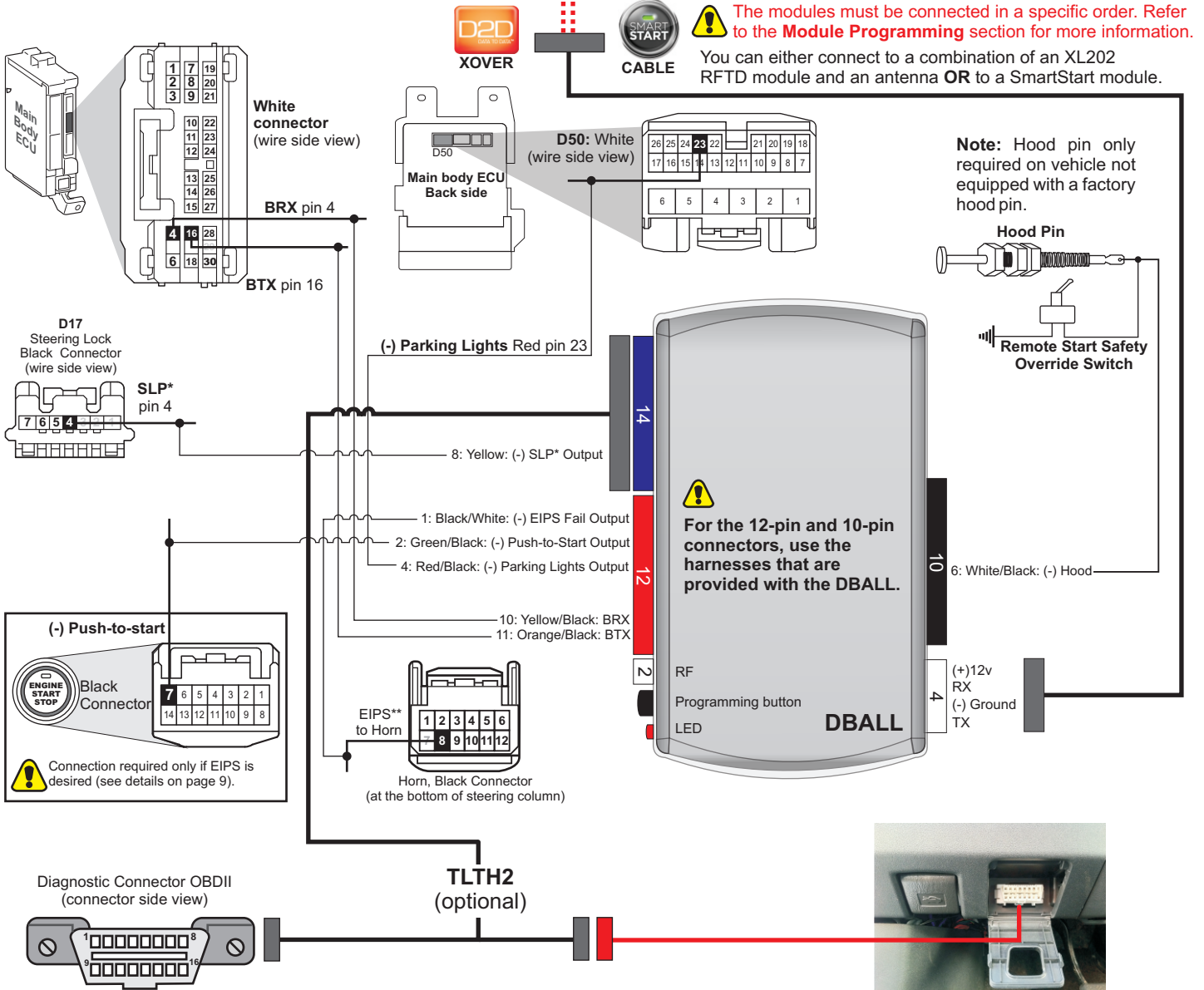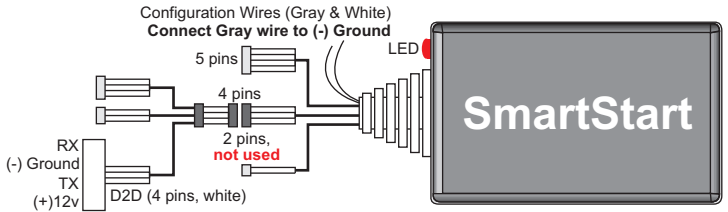
Installation Type 2a (with T-Harness)

⚠ **Important!**
The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

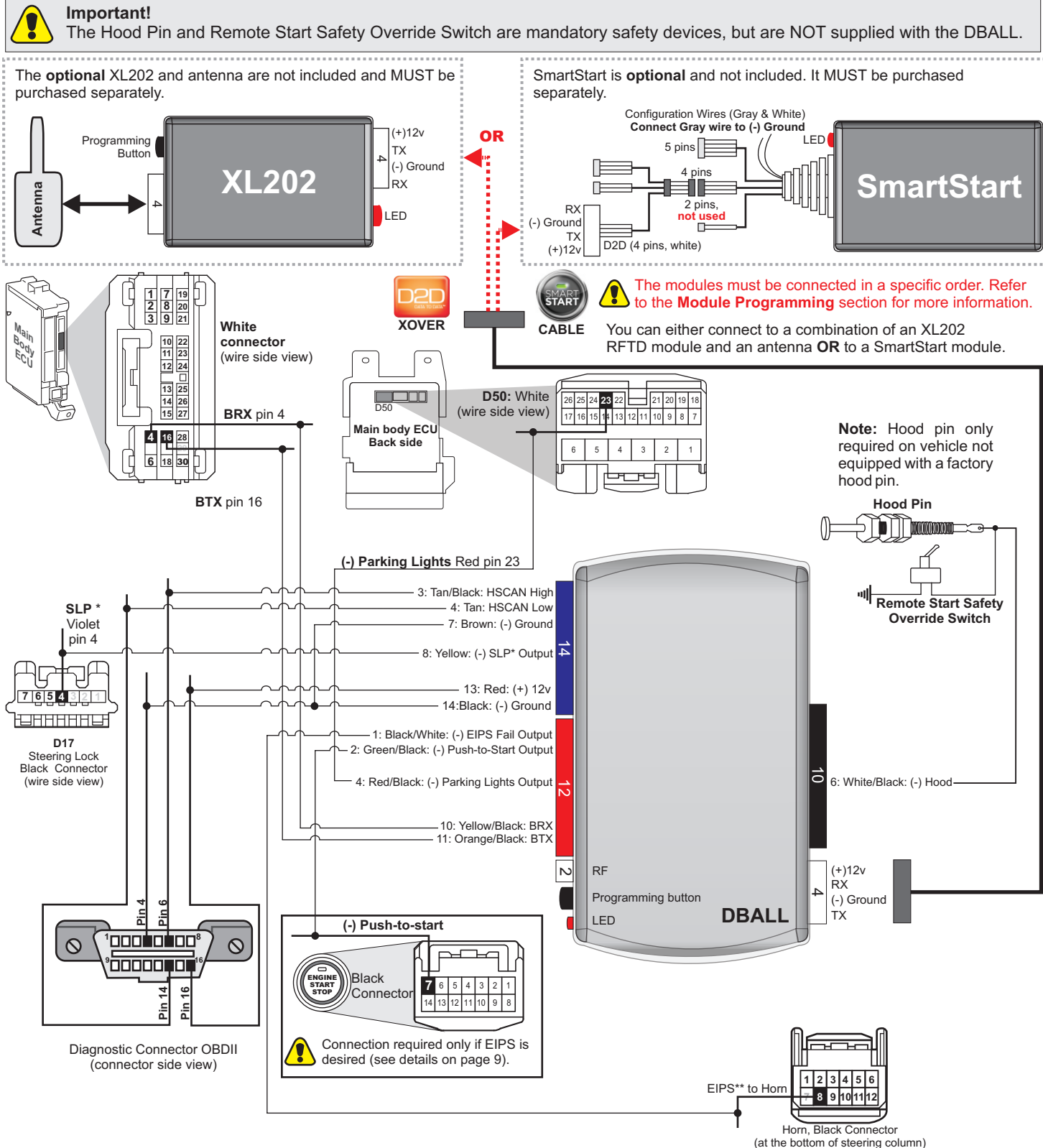The **optional** XL202 and antenna are not included and MUST be purchased separately.

Antenna

Programming Button

XL202

(+)12v
TX
(-) Ground
RX

4

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground

5 pins

LED

4 pins

2 pins, **not used**

RX
(-) Ground
TX
(+)12v

D2D (4 pins, white)

SmartStart

D2D
XOVER

SMART START
CABLE

⚠ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.
You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

Main Body ECU

White connector
(wire side view)

1 7 19
2 8 20
3 9 21
10 22
11 23
12 24
13 25
14 26
15 27
4 16 28
6 18 30

BRX pin 4

BTX pin 16

D50

D50: White
(wire side view)

Main body ECU Back side

26 25 24 23 22 | 21 20 19 18
17 16 15 14 13 12 11 10 9 8 7
6 5 4 3 2 1

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

Remote Start Safety Override Switch

D17
Steering Lock Black Connector (wire side view)

SLP* pin 4

7 6 5 4 3

(-) Parking Lights Red pin 23

14

8: Yellow: (-) SLP* Output

1: Black/White: (-) EIPS Fail Output
2: Green/Black: (-) Push-to-Start Output
4: Red/Black: (-) Parking Lights Output

12

10: Yellow/Black: BRX
11: Orange/Black: BTX

⚠ **For the 12-pin and 10-pin connectors, use the harnesses that are provided with the DBALL.**

10

6: White/Black: (-) Hood

(-) Push-to-start

ENGINE START STOP

Black Connector

7 6 5 4 3 2 1
14 13 12 11 10 9 8

⚠ Connection required only if EIPS is desired (see details on page 9).

EIPS** to Horn

1 2 3 4 5 6
8 9 10 11 12

Horn, Black Connector
(at the bottom of steering column)

2

RF

Programming button

LED

DBALL

4

(+)12v
RX
(-) Ground
TX

Diagnostic Connector OBDII
(connector side view)

1 8
9 16

TLTH2 (optional)

⚠ See page 9 for help on locating key components in the vehicle and wiring reference chart.

* SLP: Steering Lock Actuator Position Signal
** Only required if EIPS option is desired.
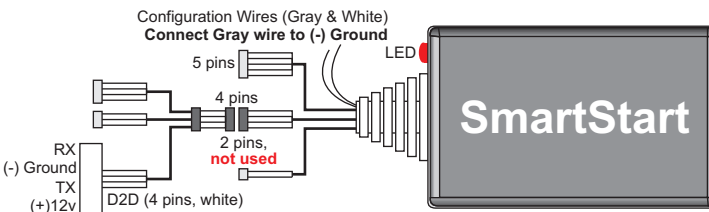
Installation Type 2b (without T-Harness)

⚠️ **Important!**
The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

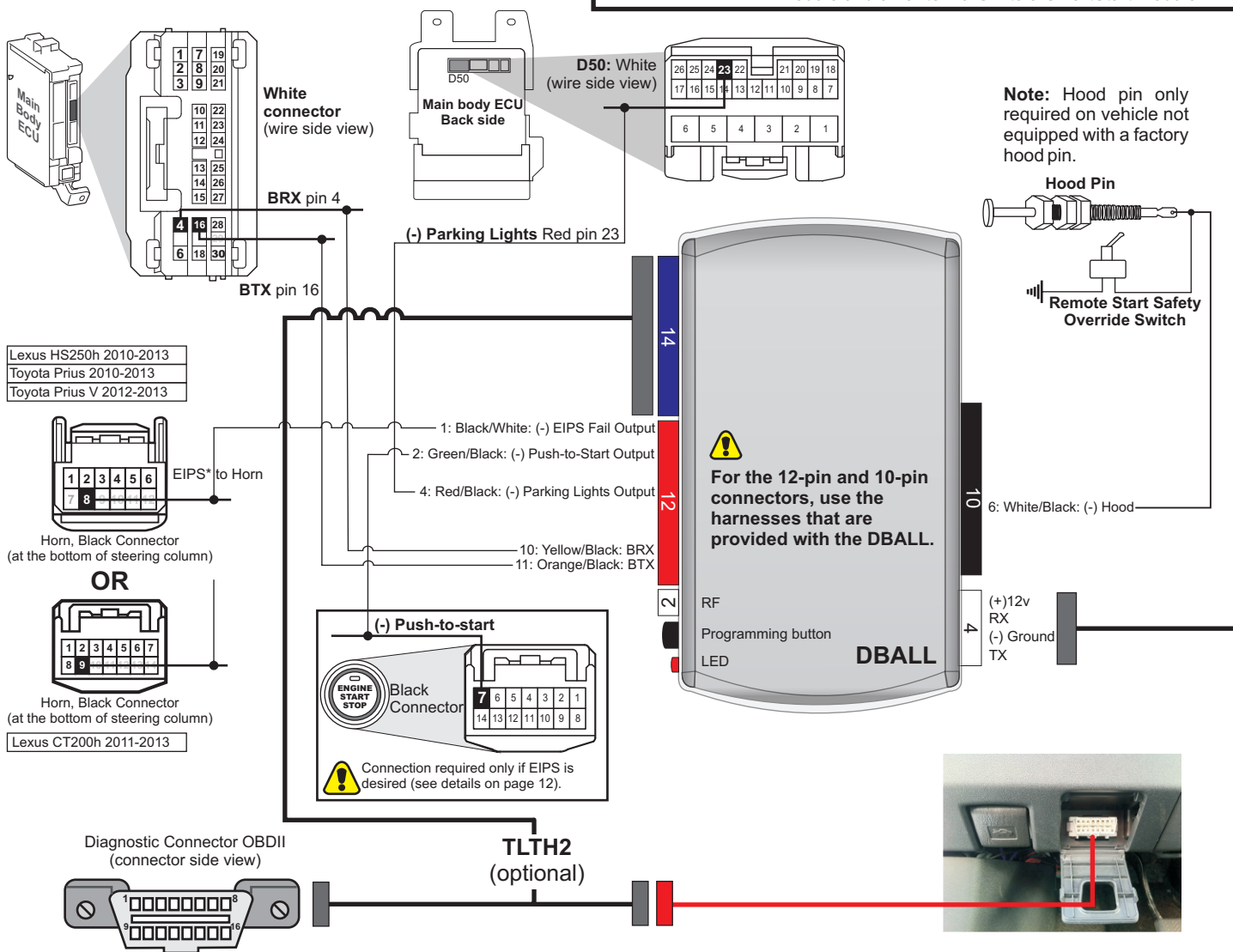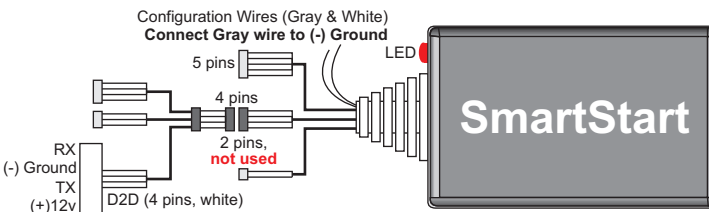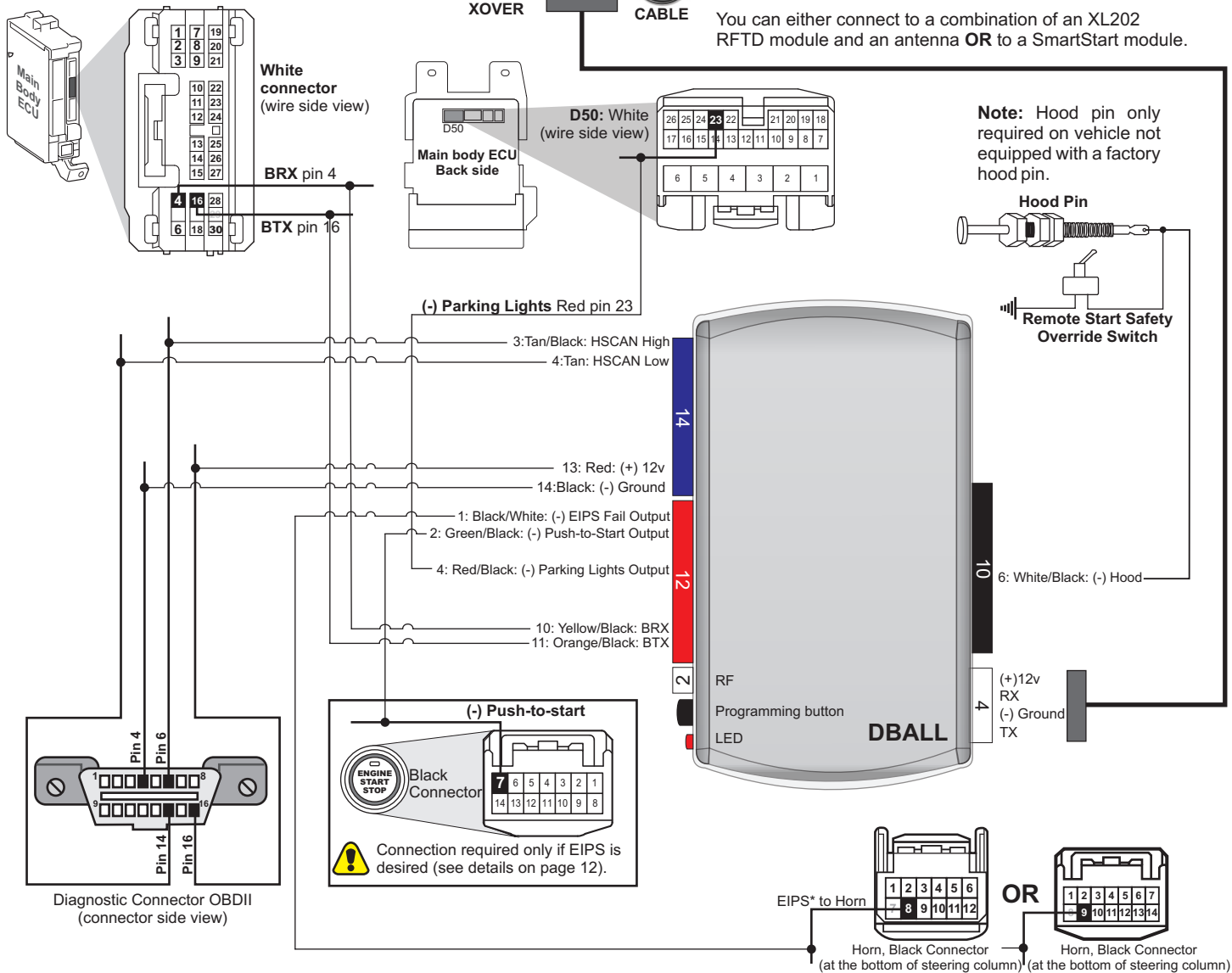The **optional** XL202 and antenna are not included and MUST be purchased separately.

Programming Button

XL202

Antenna

(+)12v
TX
(-) Ground
RX

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground

5 pins
4 pins
2 pins, **not used**

LED

SmartStart

RX
(-) Ground
TX
(+)12v

D2D (4 pins, white)

D2D XOVER

SMART START CABLE

⚠️ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

Main Body ECU

1	7	19
2	8	20
3	9	21
	10	22
	11	23
	12	24
	13	25
	14	26
	15	27
4	16	28
6	18	30

White connector
(wire side view)

BRX pin 4

BTX pin 16

D50

Main body ECU Back side

D50: White (wire side view)

26	25	24	23	22		21	20	19	18
17	16	15	14	13	12	11	10	9	8	7
6	5	4	3	2	1

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

Remote Start Safety Override Switch

(-) Parking Lights Red pin 23

SLP *
Violet
pin 4

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

D17
Steering Lock
Black Connector
(wire side view)

3: Tan/Black: HSCAN High
4: Tan: HSCAN Low
7: Brown: (-) Ground

8: Yellow: (-) SLP* Output

13: Red: (+) 12v
14: Black: (-) Ground

1: Black/White: (-) EIPS Fail Output
2: Green/Black: (-) Push-to-Start Output

4: Red/Black: (-) Parking Lights Output

10: Yellow/Black: BRX
11: Orange/Black: BTX

14

12

2

10

6: White/Black: (-) Hood

RF

Programming button

LED

DBALL

(+)12v
RX
(-) Ground
TX

4

Pin 4
Pin 6
Pin 14
Pin 16

| 1 | | | | | | | 8 |
| 9 | | | | | | | 16 |

Diagnostic Connector OBDII
(connector side view)

(-) Push-to-start

ENGINE START STOP

Black Connector

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 14 | 13 | 12 | 11 | 10 | 9 | 8 |

⚠️ Connection required only if EIPS is desired (see details on page 9).

EIPS** to Horn

| 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | 9 | 10 | 11 | 12 |

Horn, Black Connector
(at the bottom of steering column)

⚠️ See page 9 for help on locating key components in the vehicle and wiring reference chart.

* **SLP**: Steering Lock Actuator Position Signal
** Only required if EIPS option is desired.

Vehicle Wiring Reference Chart - Type 2

Vehicles	Function	Connector	Pin	Wire
Lexus GX 460 2010-2013	CAN High	G37 (OBDII)	6	Red
	Can Low	G37 (OBDII)	14	White
	BRX	G47	4	Red
	BTX	G47	16	Green
	Push-to-Start	G24	7	Lt. Green
	SLP*	G23	4	Lt. Blue
	Horn	G28	8	Green
	12v	G37 (OBDII)	4	Black
Lexus RX 350 2010-2012	CAN High	F17 (OBDII)	6	Violet
	Can Low	F17 (OBDII)	14	Red
	BRX	F13	4	Pink
	BTX	F13	16	Lt. Green
	Push-to-Start	F22	7	Lt. Green
	SLP*	F37	4	Green
	Horn	F40	8	White
	12v	F17 (OBDII)	4	White
Lexus RX 450h 2010-2012	CAN High	F17 (OBDII)	6	Violet
	Can Low	F17 (OBDII)	14	Red
	BRX	F13	4	Pink
	BTX	F13	16	Lt. Green
	Push-to-Start	F22	7	Lt. Green
	SLP*	F37	4	Green
	Horn	F40	8	White
	12v	F17 (OBDII)	4	Black

Vehicles	Function	Connector	Pin	Wire
Toyota 4Runner Smart Key 2010-2012	CAN High	F13 (OBDII)	6	Violet
	Can Low	F13 (OBDII)	14	White
	BRX	F9	4	Gray
	BTX	F9	16	White
	Push-to-Start	F71	7	Lt. Green
	SLP*	F68	4	Lt. Blue
	Horn	F23	8	Gray
	12v	F13 (OBDII)	4	Black
Toyota Sienna Smart Key 2011-2012	CAN High	D16 (OBDII)	6	Red
	Can Low	D16 (OBDII)	14	White
	BRX	D13	4	Black
	BTX	D13	16	Blue
	Push-to-Start	D33	7	Blue
	SLP*	D29	4	Green
	Horn	D21	8	Green
	12v	D16 (OBDII)	4	Red

* SLP: Steering Lock actuator position signal.

⚠️ **WARNING**
- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.
- To remote start the engine, all doors must be closed, including rear hatch.

Locating Key Components in the Vehicle

Main Body ECU
Lexus GX460: conn. **G47**
Lexus RX350: conn. **F13**
Lexus RX450h: conn. **F13**
Toyota 4Runner: conn. **F9**
Toyota Sienna: conn. **D13**

Push-to-start button
Lexus GX460: conn. **G24**
Lexus RX350: conn. **F22**
Lexus RX450h: conn. **F22**
Toyota 4Runner: conn. **F71**
Toyota Sienna: conn. **D33**

Diagnostic connector
Lexus GX460: conn. **G37**
Lexus RX350: conn. **F17**
Lexus RX450h: conn. **F17**
Toyota 4Runner: conn. **F13**
Toyota Sienna: conn. **D16**

Black connector at steering lock
Lexus GX460: conn. **G23**
Lexus RX350: conn. **F37**
Lexus RX450h: conn. **F37**
Toyota 4Runner: conn. **F68**
Toyota Sienna: conn. **D29**

Installation Type 3a (with T-Harness)

> ⚠️ **Important!**
> The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

The **optional** XL202 and antenna are not included and MUST be purchased separately.

Programming Button

Antenna

XL202

4

(+)12v
TX
(-) Ground
RX

4

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground

5 pins

4 pins

2 pins,
not used

LED

SmartStart

RX
(-) Ground
TX
(+)12v

D2D (4 pins, white)

D2D
XOVER

SMART START
CABLE

⚠️ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

Main Body ECU

1 7 19
2 8 20 21
3 9

10 22
11 23
12 24

13 25
14 26
15 27

4 16 28
6 18 30

White connector
(wire side view)

BRX pin 4

BTX pin 16

D50

Main body ECU Back side

D50: White
(wire side view)

(-) Parking Lights Red pin 23

26 25 24 23 22 | 21 20 19 18
17 16 15 14 13 12 11 10 9 8 7

6 5 4 3 2 1

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

Remote Start Safety Override Switch

Lexus HS250h 2010-2013
Toyota Prius 2010-2013
Toyota Prius V 2012-2013

1 2 3 4 5 6
7 8

EIPS* to Horn

Horn, Black Connector
(at the bottom of steering column)

OR

1 2 3 4 5 6 7
8 9

Horn, Black Connector
(at the bottom of steering column)

Lexus CT200h 2011-2013

1: Black/White: (-) EIPS Fail Output

2: Green/Black: (-) Push-to-Start Output

4: Red/Black: (-) Parking Lights Output

10: Yellow/Black: BRX
11: Orange/Black: BTX

(-) Push-to-start

ENGINE START STOP

Black Connector

7 6 5 4 3 2 1
14 13 12 11 10 9 8

⚠️ Connection required only if EIPS is desired (see details on page 12).

14

12

For the 12-pin and 10-pin connectors, use the harnesses that are provided with the DBALL.

2

RF

Programming button

LED

DBALL

10

6: White/Black: (-) Hood

4

(+)12v
RX
(-) Ground
TX

Diagnostic Connector OBDII
(connector side view)

1 8
9 16

TLTH2
(optional)

⚠️ See page 12 for help on locating key components in the vehicle and wiring reference chart.

* Only required if EIPS option is desired.

Installation Type 3b (without T-Harness)

> ⚠️ **Important!**
> The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

The **optional** XL202 and antenna are not included and MUST be purchased separately.

Programming Button

XL202

Antenna

(+)12v
TX
(-) Ground
RX

4

4

LED

OR

SmartStart is **optional** and not included. It MUST be purchased separately.

Configuration Wires (Gray & White)
Connect Gray wire to (-) Ground

5 pins

4 pins

2 pins, **not used**

LED

SmartStart

RX
(-) Ground
TX
(+)12v

D2D (4 pins, white)

D2D
XOVER

SMART START
CABLE

⚠️ The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

You can either connect to a combination of an XL202 RFTD module and an antenna **OR** to a SmartStart module.

Main Body ECU

1 7 19
2 8 20
3 9 21
10 22
11 23
12 24
13 25
14 26
15 27
4 16 28
6 18 30

White connector (wire side view)

BRX pin 4

BTX pin 16

D50

Main body ECU Back side

D50: White (wire side view)

26 25 24 23 22 | 21 20 19 18
17 16 15 14 13 12 11 10 9 8 7
6 5 4 3 2 1

Note: Hood pin only required on vehicle not equipped with a factory hood pin.

Hood Pin

Remote Start Safety Override Switch

(-) Parking Lights Red pin 23

3:Tan/Black: HSCAN High
4:Tan: HSCAN Low

14

13: Red: (+) 12v
14:Black: (-) Ground

1: Black/White: (-) EIPS Fail Output
2: Green/Black: (-) Push-to-Start Output

4: Red/Black: (-) Parking Lights Output

12

10: Yellow/Black: BRX
11: Orange/Black: BTX

2

RF

Programming button

LED

DBALL

10

6: White/Black: (-) Hood

4

(+)12v
RX
(-) Ground
TX

(-) Push-to-start

ENGINE START STOP

Black Connector

7 6 5 4 3 2 1
14 13 12 11 10 9 8

⚠️ Connection required only if EIPS is desired (see details on page 12).

Pin 4 Pin 6

1 8
9 16

Pin 14 Pin 16

Diagnostic Connector OBDII (connector side view)

EIPS* to Horn

1 2 3 4 5 6
7 8 9 10 11 12

OR

1 2 3 4 5 6 7
8 9 10 11 12 13 14

Horn, Black Connector (at the bottom of steering column)

Horn, Black Connector (at the bottom of steering column)

⚠️ See page 12 for help on locating key components in the vehicle and wiring reference chart

Lexus HS250h 2010-2013	Lexus CT200h 2011-2013
Toyota Prius 2010-2013	
Toyota Prius V 2012-2013	

* Only required if EIPS option is desired.

Vehicle Wiring Reference Chart - Type 3

Vehicles	Function	Connector	Pin	Wire
Lexus CT 200h 2011	CAN High	H44 (OBDII)	6	Red
	Can Low	H44 (OBDII)	14	White
	BRX	H16	4	Yellow
	BTX	H16	16	Blue
	Push-to-Start	H78	7	Black
	Horn	H30	9	Yellow
	12v	H44 (OBDII)	4	White
Lexus HS 250h 2010-2012	CAN High	F11 (OBDII)	6	Green
	Can Low	F11 (OBDII)	14	Black
	BRX	F9	4	Yellow
	BTX	F9	16	Blue
	Push-to-Start	F2	7	Blue
	Horn	F19	8	White
	12v	F11 (OBDII)	4	Black
Toyota Prius 2010-2012 & Toyota Prius v 2012	CAN High	L61 (OBDII)	6	White
	Can Low	L61 (OBDII)	14	Yellow
	BRX	L7	4	Violet
	BTX	L7	16	Green
	Push-to-Start	L43	7	Black
	Horn	L52	8	Yellow
	12v	L61 (OBDII)	4	White
Toyota Prius V 2013	CAN High	OBDII	6	Black
	Can Low	OBDII	14	White
	BRX (Body ECU)	L7	4	Violet
	BTX (Body ECU)	L7	16	Green
	Push-to-Start	L43	7	Black
	Light (Body ECU)	L7	30	Yellow
	Horn	L52	8	Yellow
	12v	2E	1	White

⚠️ **WARNING**
- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.
- To remote start the engine, all doors must be closed, including rear hatch.

Locating Key Components in the Vehicle

Main Body ECU
Lexus HS250h: conn. **2E, F9**
Toyota Prius: conn. **2E, L7**

Push-to-start button
Lexus HS250h: conn. **F2**
Toyota Prius: conn. **L43**

Diagnostic connector
Lexus HS250h: conn. **F11**
Toyota Prius: conn. **L61**
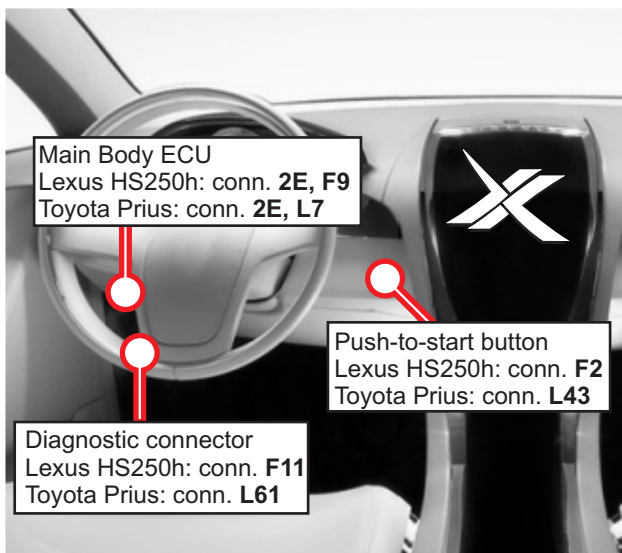
Module Programming

⚠ Refer to the LED Diagnostics section on page 16 for more information and for troubleshooting purposes.

Important

Make all the required connections to the vehicle, as described in the wiring diagram(s) found in this guide, and double check to ensure everything is correct prior to moving onto the next step.

Note: Before connecting either the XL202 or SmartStart module to DBALL, it is important to ensure that the proper feature and function programming is selected using XpressVIP (version 4.5 or higher). Visit www.xpresskit.com to download the latest version of the application.

⚠ **Warning!** To take advantage of advanced features, you must use XpressVIP 4.5 or higher. Using version 2.9 or 3.1 will limit available functions and features.

1. Connect the interface module to your computer using the **XKLoader2**.

2. Open an Internet Explorer browser (version 6 or higher), and go to www.xpresskit.com. The detail of the platform and firmware that is currently saved on the interface module will be indicated in the top left corner of the page.

3. Select the **year**, **make** and **model** of the vehicle; the page will refresh to display the compatible firmware.

4. In the search result page, select one of the available install options (config for RSR, RXT or Standard install), and follow the instructions provided on the screen.

5. Once you have configured your options, click on the **FLASH** button to upload the firmware onto the interface module.

6. The following message will be displayed when the upload is completed:
   "The flashing is successfully completed. You may now unplug the kit."
   You can now proceed with the programming instructions below.

1

SmartStart Installation

⚠ The DBALL module **must** be disconnected from any power source before SmartStart can be connected to it. Failing to do so could damage DBALL.

a. Ensure that the Gray wire is connected to a ground source or the D2D communication between the 2 modules will not work.

b. Do **NOT** connect the 2-pin harness (on SmartStart). Power and ground will be provided by the DBALL D2D connector.

Connect SmartStart to DBALL using the D2D port.
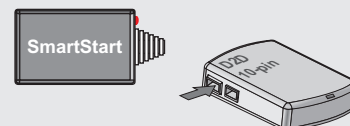
OR

XL202 Installation

Connect XL202 to DBALL using the D2D port.
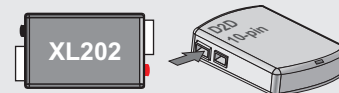
2

Connect the 10-pin, 12-pin and 14-pin harnesses to DBALL, then wait until the LED turns ON solid red.
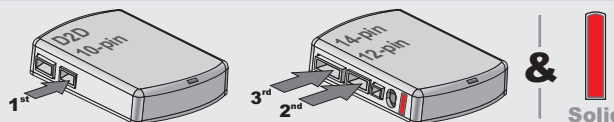
Solid

3

Wait until the LED turns ON solid red, the press the vehicle Push-to-Start (PTS) button twice (2) to turn the ignition ON. Wait for the LED to turn ON solid green for three (3) seconds*.

Solid Red & ENGINE START STOP PUSH x2 & Solid Green x3 secs.
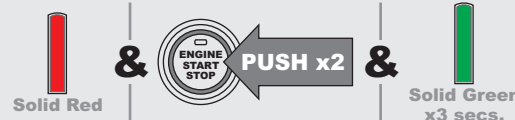
4

Press the vehicle PTS button once (1) to turn the ignition OFF. Wait for the LED to turn OFF. DBALL is now programmed.

ENGINE START STOP PUSH x1 & Off

---

*If the LED turns orange, the vehicle is equipped with a factory remote starter, make sure the DBALL is programmed to execute the desired operation. See page 3 for more information.

Module Reset

A module reset will only erase programming performed in the previous steps. All settings (firmware) and settings flashed to the module using the web config tool will not be affected.

1 If required for your installation, connect the 10-pin & 12-pin harnesses to the module. Press and hold the programming button, then connect the 14-pin harness to the module.
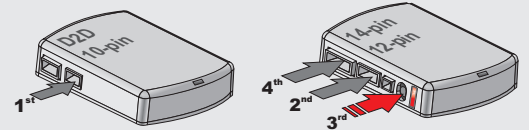
2 Wait 3 seconds until the LED turns ON solid orange then release the programming button. The LED turns ON solid red.

Solid | Release | Solid

Hard Reset

Warning Against Executing a Hard Reset!
A hard reset will revert the flashed firmware back to its default settings. Depending on the installation, some settings (such as RFTD and D2D options) may have to be reconfigured. See the **Feature & Option List** section of this guide.

1 If required for your installation, connect the 10-pin & 12-pin harnesses to the module. Press and hold the programming button, then connect the 14-pin harness to the module.
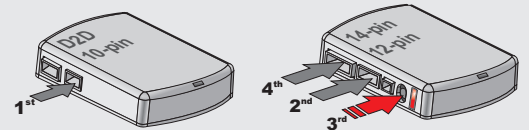
2 Wait 3 seconds until the LED turns ON solid orange, and wait 10 more seconds until the LED starts to flash orange and red.

Solid | Flashes

3 Release the programming button. The LED turns ON solid red.

Release | Solid

DIRECTED®

Feature and Option List

It is recommended to configure all the features and options listed below using the configuration tool found on the module flashing page on www.xpresskit.com. The web offers more options such as EIPS and RSR; however, manual configuration of the features is possible using the information on this page.

Feat.	Operation	Flashes/Option	Description
1	RFTD Output Type	**1. No RF Output***	Module is connected to a remote starter using a standard installation.
		2. RFTD Output	Module is connected to an XL202 using an RSR or RXT installation (when available).
		3. SmartStart	Module is connected to SmartStart using an RSR or RXT installation (when available).
2	Unlock Driver Priority	**1. Driver priority***	Unlocks only the driver door on first press and unlocks all doors on a second press within 5 seconds.
		2. All	Unlocks all doors on first press.
3	Smart OEM Alarm Control	1. Disabled	The OEM alarm will not be controlled by DBALL upon remote start. No disarm or arm command will be executed at the beginning or end of the sequence; it must be controlled by the Remote Starter.
		2. Safelock	Smart OEM Alarm Control will behave like a standard Safelock feature on a remote starter. It will unlock at the beginning of the sequence, and relock after start and shutdown.
		3. Enabled*	Smart OEM Alarm Control will synchronize with the OEM alarm so that it will disarm and rearm the vehicle in the remote start sequence, only when required. The reason for this is, factory alarm control must often be done by lock or unlock operation. This could create unnecessary actions on door lock modules, such as the horn to honk. When possible, Smart OEM Alarm Control will monitor the alarm and door lock status to detect if the disarm or rearm is required. If the vehicle is unlocked or is not equipped with factory alarm, the disarm/rearm will not be executed. Smart OEM Alarm Control will also monitor the remote starter actions so that the factory alarm control is not done twice. A remote starter, for which the Safelock feature is active, will work perfectly with this option and will make it invisible to the user.

* Default Option

Feature Programming

Programming Button

To enter feature programming routine
- Turn the ignition ON, then OFF.
- **Within 5 seconds**, press and HOLD the programming button until the LED turns ON orange (after 3 seconds). Release the Programming button.
- The LED will flash green once slowly to indicate the feature number is 1. After a short delay, the LED flashes red rapidly to indicate the current option of feature 1 (i.e. 1x green followed by 1x red indicates feature 1 is set to option 1). The flashing sequence will repeat until a new command is entered.

Changing feature options
- Press the lock/arm or unlock/disarm button on aftermarket transmitter to change the option of the selected feature.
- The LED flashes red rapidly the number of times equal to the current option number. After a short delay, the LED flashes green slowly the number of times to indicate the current feature. The flashing sequence will repeat until a new command is entered.

Accessing another feature
- Press and release the programming button a number of times to advance from the current feature to the next desired feature.
- The LED flashes green slowly the number of times equal to the feature number. After a short delay, the LED flashes red rapidly to indicate the current option of the current feature. The flashing sequence will repeat until a new command is entered.

When the maximum number of features or options is reached, the LED will start flashing again from the first feature or option.

Once a feature is programmed
- Other features can be programmed.
- The feature programming can be exited.

Exiting feature programming
- No activity for 30 seconds; after 30 seconds, the LED will turn ON orange for 2 seconds to confirm the end of the programming sequence.
  OR
- Press and HOLD the programming button for 3 seconds. After 3 seconds, the LED will turn ON orange for 2 seconds to confirm the end of the programming sequence.

LED Diagnostics and Troubleshooting

LED	Status	Description	Troubleshooting
Programming the Module			
Solid	Solid Red	Waiting for the completion of a programming sequence, or for the ignition to be turned ON.	This can also mean that there is an issue with the data bus wiring. Make sure that the connections to the data bus are correct by referring to the wiring diagram.
Flashes 5x	Flashes Red 5x	BRX signal not detected.	The BRX wire may be incorrectly connected. Refer to the wiring diagram to make the right connections.
Flashes 6x	Flashes Red 6x	BTX signal not detected.	The BTX wire may be incorrectly connected. Refer to the wiring diagram to make the right connections.
Solid x3 secs	Solid Green x3 seconds	Module successfully programmed.	Normal operation
Solid x3 secs	Solid Orange x3 seconds	Module successfully programmed without bypass.	OEM remote starter has been detected, you can either keep the OEM remote starter mode or disconnect it. See page 3 for more information.
Off	Off	Module has no power.	Make sure that the D2D harness is connected or that the 12 Volt is present between the red and black wires. If the 12 Volt is present, the module may be defective.
Remote Starting the Vehicle			
Flashes	Flashes Green	Module is operating correctly.	Normal operation
Flashes 10x	Flashes Red 10x	Vehicle not ready to start.	Make sure that all doors, hood, and trunk are closed. Cycle ignition ON and OFF.
Flashes 5x	Flashes Red 5x	Bypass failed.	A problem with the bypass was detected. Check your connections to the CAN, BRX, and BTX and try to reprogram the module if the problem persists.
Flashes 7x	Flashes Red 7x	Module not in RSR mode	Remote start the vehicle in RSR was attempted without activating the RF_OUTPUT. See page 12 for more information. RFTD feature has not been activated.
Off	Off	Normal operation	The Ground While Running (status) wire is incorrectly connected. Refer to the wiring diagram to make the right connections.
While the Ignition is Turned Off			
Flashes 1x	Flashes Green 1x	Lock feature executed.	
Flashes 2x	Flashes Green 2x	Unlock feature executed.	If it does not flash, the bypass module did not receive the signal. Verify the connections between the bypass and the remote starter module.
Flashes 3x	Flashes Green 3x	Trunk release feature executed.	
Flashes 4x	Flashes Green 4x	AUX1 (Right Sliding Door) or AUX2 (Left Sliding Door) feature executed.	

Parking Light Error Codes

The parking lights on your vehicle will flash a specific number of times 3 seconds following an unscheduled shutdown or failure to start. Each flashing pattern is described below.

Flashes	Diagnostic
1	Runtime expired.
2	Over-rev shutdown.
3	Low/No RPM.
4	Transmitter shutdown.
5	Brake shutdown.
6	Hood shutdown/Remote start safety override switch is ON*.
7	Remote start safety override switch is ON*.

* If the vehicle hood status is supported through data, safety override switch input will report 7 flashes.

Optional RF Kits

⚠️ **Note:** RF kits are sold SEPARATELY. Request an order from Directed using the part numbers listed below.

9211VL

Viper 1-Way Responder ONE - Plug & Play RF Kit with XL202.
UPC: **093207 08488 1**

Also available as:
- Python: 9211PL
- Clifford: 9211XL

9153VL

Viper 1-Way - Plug & Play RF kit with XL202.
UPC: **093207 05660 4**

Also available as:
- Python: 9153PL
- Clifford: 9153XL

9251VL

Viper 2-Way Responder LE - Plug & Play RF Kit with XL202.
UPC: **093207 08489 8**

Also available as:
- Python: 9251PL
- Clifford: 9251XL

9752VL

Viper 2-Way LC3 - Plug & Play RF kit with XL202.
UPC: **093207 08490 4**

Also available as:
- Python: 9752PL
- Clifford: 9752XL

Optional RF Kits

⚠️ **Note:** RF kits are sold SEPARATELY. Request an order from Directed using the part numbers listed below.

AF-RFK623

Astrostart 2-way LED Receiver kit with up to 1,500' of range.
UPC: 093207 08752 3

AF-RFK5225

Astrostart 2-way LCD Receiver kit offering XRT™ technology with up to 5,000' of range.
UPC: **093207 08753 0**

AS-RFK1700

Autostart 1-way Receiver kit with up to 3,000' of range.
UPC: **093207 08738 7**

AS-RFK2300

Autostart 2-way LED Receiver kit offering HDR™ technology with up to 3,000' of range.
UPC: **093207 08739 4**

Limited One Year Consumer Warranty

For a period of ONE YEAR from the date of purchase of a Directed Electronics remote start or security product, Directed Electronics. ("DIRECTED") promises to the original purchaser, to repair or replace with a comparable reconditioned piece, the security or remote start accessory piece (hereinafter the "Part"), which proves to be defective in workmanship or material under normal use, provided the following conditions are met: the Part was purchased from an authorized DIRECTED dealer; and the Part is returned to DIRECTED, postage prepaid, along with a clear, legible copy of the receipt or bill of sale bearing the following information: consumer's name, address, telephone number, the authorized licensed dealer's name and complete product and Part description.

This warranty is nontransferable and is automatically void if the Part has been modified or used in a manner contrary to its intended purpose or the Part has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defect in materials or construction.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, EXCEPT AS STATED ABOVE, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NONINFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED HEREBY DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING DEALERS OR INSTALLERS. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE PROPER VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE PART. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR
REPAIR AT DIRECTED'S OPTION THE PART AS DESCRIBED ABOVE.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State. DIRECTED does not and has not authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this Part.

920-0007 2009-09

This Interface kit / Data Bus Interface part has been tested on the listed vehicles. Other vehicles will be added to the select vehicle list upon completion of compatibility testing. Visit website for latest vehicle application guide. DISCLAIMER: Under no circumstances shall the manufacturer or the distributors of the bypass kit / data bus interface part(s) be held liable for any consequential damages sustained in connection with the part(s) installation. The manufacturer and it's distributors will not, nor will they authorize any representative or any other individual to assume obligation or liability in relation to the interface kit / data bus interface part(s) other than its replacement. N.B.: Under no circumstances shall the manufacturer and distributors of this product be liable for consequential damages sustained in connection with this product and neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than the replacement of this product only.

Protected by U.S. Patents: 5,719,551; 6,011,460 B1 *; 6,243,004 B1; 6,249,216 B1; 6,275,147 B1; 6,297,731 B1; 6,346,876 B1; 6,392,534 B1; 6,529,124 B2; 6,696,927 B2; 6,756,885 B1; 6,756,886 B2; 6,771,167 B1; 6,812,829 B1; 6,924,750 B1; 7,010,402 B1; 7,015,830 B1; 7,031,826 B1; 7,046,126 B1; 7,061,137 B1; 7,068,153 B1; 7,205,679 B1; Cdn. Patent: 2,320,248; 2,414,991; 2,415,011; 2,415,023; 2,415,027; 2,415,038; 2,415,041; 2,420,947; 2,426,670; 2,454,089; European Patent: 1,053,128; Pat. Pending: 2,291,306. Made in Canada.
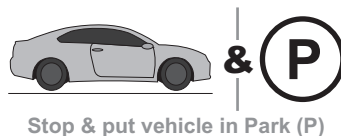
Additional information can be found at:

www.xpresskit.com
www.directechs.com

Pit Stop Mode

The Pit Stop Mode feature is practical when you need to stop and run an errand, but wish to keep the engine running.
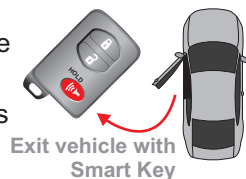
1 Stop the vehicle in a safe parking spot and put the gear in Park (P).

Stop & put vehicle in Park (P)

2 Press the start button to activate the Pit Stop Mode.

Press remote start button*

3 It is now safe to leave the engine running and exit the vehicle with the Smart Key in hand.

Note: We recommend that you always lock the doors of your vehicle when leaving it unattended.

Exit vehicle with Smart Key

* Your aftermarket remote may differ from the model shown in the illustrations.

Additional Features

(Must be completed by the installer.)

The following features are available with this product, but may not be compatible with your vehicle. Refer to your installation facility for more information.

☐ **Door Lock Control**

☐ **Trunk**

☐ **3x OEM Lock Remote Start Activation**

This feature enables you to start/stop the vehicle using the OEM remote.

Press the OEM remote LOCK button three (3) times within three (3) seconds to start the vehicle. To stop the vehicle, press the LOCK button three (3) more times.

⚠ The OEM remote lock and unlock functions are inactive, therefore, the 3x OEM Lock Remote Start Activation feature cannot be used for idle mode.

Note: Additional fees may apply for the installation of the above features.

List of Available Commands

Note that the information below is for Viper, Clifford and Python models. Icons and commands may differ depending on the remote brand and model purchased. Refer to your authorized installation center for more information.

Button(s)	Actions
🔒	Press & hold for 1 second to lock.
🔓	Press & hold for 1 second to unlock.
⟳	Press & hold for 1 second to remote start.
AUX	Press & hold for 5 seconds to activate the trunk release (optional).
ƒ x1 + AUX	Press ƒ once, then AUX to activate the rear hatch/tail glass release (optional).*
ƒ x3 + AUX	Press ƒ 3 times, then AUX to activate the panic mode.
ƒ x1 + ⟳	Press ƒ once, then ⟳ to reset the remote starter runtime.

* This output is configurable. see your authorized installation center for more information.

SmartStart Compatible

This system is compatible with Directed SmartStart 3.0. For a complete list of supported features, please visit www.mysmartstart.com.

What is SmartStart?

Now you can remote start, lock and unlock your car just by pushing a button on your smartphone; using the SmartStart App from Directed, the leader in vehicle security and remote start. The simple graphical interface gives you control over the following features of your installed remote start or security with remote start system:

• Lock/Arm
• Unlock/Disarm
• Remote Car Starter
• Trunk Release
• Panic
• Aux Channels

You can also control multiple vehicles – great for families – and assign more than one user to control a vehicle. It's easy with SmartStart!

But, this is only the beginning! SmartStart is loaded with additional features including GPS tracking, SmartSchedule, vehicle status, roadside assistance, home control, parked car finder and more.

3.0 enables a "Cloud-Connected Car" like never before, providing an entirely new level of 2-way interaction with your vehicle. Connectivity is managed through the Directed Cloud Services (DCS) network linking car, app, end user, and the Internet.

For more information, visit www.mysmartstart.com.

Engine Idle Protection System (EIPS)

Vehicles equipped with RFID-type Push-to-Start ignition systems work by detecting a proximity key in the vehicle. They will run indefinitely if the key is removed, which could potentially lead users to exiting the vehicle while the engine is still running and the car is left idling on its own in a garage or a confined space.

To mitigate risk, we have designed a feature that is now available on the DBALL. It will detect the presence of the RFID fob in the vehicle, through the CAN bus. If left idling for more than the pre-defined runtime (i.e. 1 to 5 minutes) without detecting the fob, DBALL will send a signal to the vehicle in order to shut off the engine.

EIPS (Engine Idle Protection System) will:

 Protection System) will:

▪ Notify the user about the idling engine by sounding the horn with a series of short beeps.

▪ Shut down the engine after a pre-defined period of time (i.e. 1 to 5 minutes). EIPS is configured using XpressVIP. The following window is displayed whenever a DBALL module is flashed.

▪ If the engine fails to shut down due to some malfunction, EIPS will go into alarm mode and will notify the user by all means possible (e.g. horn or siren).

Activating/deactivating EIPS:

▪ To activate EIPS, remove all keys from the vehicle and close all doors while the engine is running.

▪ To deactivate EIPS, do one of the following actions:

• Open one of the doors.
• Remote start the vehicle.
• Turn the engine off.
• Drive the vehicle.*

* The EIPS feature is disabled if the vehicle is in motion so there is no risk that the vehicle will shut off while driving, regardless of the fob being present in the vehicle or not.

Notes